



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WASTE MANAGEMENT PROGRAM

July 29, 2011

D.P. Wirick, General Manager  
ArcelorMittal Steelton, LLC  
215 South Front Street  
Steelton, PA 17113

Re: Issuance of Draft Permit  
RCRA Post Closure Permit Application  
ArcelorMittal Steelton, LLC  
EPA ID No. PAD003026531  
APS No. 734199  
Swatara and Lower Swatara Townships, Dauphin County

Dear Mr. Wirick:

The Department is hereby notifying you of its intent to issue a draft permit to ArcelorMittal Steelton LLC for the post closure care of the HWM-1 hazardous waste landfill located at 215 South Front Street, Steelton, PA 17113. A statement of basis that outlines the content of the draft permit and a copy of the draft permit are enclosed for your review. The Department will be accepting written comments from the public and ArcelorMittal Steelton, LLC on the draft permit for 45 days from the date of this letter.

If the Department receives a significant degree of public interest during the comment period, then a public meeting/hearing will be scheduled. If not, the Department will subsequently issue the final permit to ArcelorMittal Steelton, LLC for operations in accordance with the approved permit and permit documents. If you have any questions concerning this draft permit or the process, please feel free to call me at 717.705.4919.

Sincerely,

Linda D. Houseal  
Facilities Supervisor  
Waste Management Program

Enclosures

cc: Jim Hernjack, ArcelorMittal, LLC  
Stephen Fulton, ARM Group

## **STATEMENT OF BASIS FOR DRAFT PERMIT**

This statement of basis has been developed for the draft Solid Waste Management Act permit which the State of Pennsylvania, Department of Environmental Protection (DEP) intends to issue to ArcelorMittal Steelton, LLC in Steelton Borough, Dauphin County (Permittee) for the post closure monitoring and maintenance of a closed hazardous waste landfill (HWM-1) located in Swatara and Lower Swatara Townships, Dauphin County.

### **PURPOSE OF THE PERMITTING PROCESS**

The purpose of the permitting process is to afford the State of Pennsylvania (DEP), interested citizens and other governmental agencies the opportunity to evaluate the ability of the Permittee to comply with the applicable hazardous waste management requirements promulgated under the Solid Waste Management Act. DEP is required to prepare a draft permit which sets forth in one concise document all the applicable requirements with which the State intends to require the Permittee to comply during the ten-year duration of the permit. The public is given forty-five days to review the application and comment on the draft permit conditions prior to DEP taking any final action on the application for a hazardous waste management permit.

### **PERMIT ORGANIZATION**

The permit is divided into three sections as outlined below.

Section Topic

Part I Standard Conditions

Part II General Facility Conditions

Part III Groundwater Monitoring

Part IV Groundwater Assessment

Part V Groundwater Abatement

Parts I and II contain conditions which generally apply to all facilities including record keeping and reporting requirements as well as contingency planning and financial assurance obligations.

Part III of the post closure permit provides information pertaining to onsite groundwater monitoring and abatement, as a result of contaminated groundwater beneath the facility. The presently approved abatement system consists of an engineered synthetic landfill cap. Groundwater samples are collected from six onsite/offsite groundwater monitoring

wells during each sampling event and the analytical results are compared to United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs), Pennsylvania (PA) Statewide Health Standards (SHSs), Alternate Concentration Limits (ACLs), Risk-Based Concentrations, or Background Standards. The groundwater ACLs, determined by conservative health risk assessments and fate and transport modeling, were established to protect human health and the environment.

Parts IV and V contain general references to the groundwater assessment and abatement sections of the regulations, should any future action be needed.

## **PROCEDURES FOR REACHING A FINAL DECISION**

Section 270a.80(b) of 25 Pa. Code requires that the public be given forty five (45) days to comment on each draft permit prepared under the Solid Waste Management Act. The comment period will begin on

July 29, 2011 and will end on September 12, 2011. Any person interested in commenting on the application or draft permit must do so within this forty five (45) day comment period.

All persons wishing to comment on any of the permit conditions or the permit application should submit the comments in writing to the Department of Environmental Protection (DEP), Southcentral Regional Office, Waste Management Program, 909 Elmerton Ave., Harrisburg, PA 17110 Attention: Permits Chief. Comments should include all reasonably available references, factual grounds and supporting material.

In the event DEP receives written notice of opposition to the draft permit and a request for a public hearing within the comment period referenced above, a hearing shall be scheduled at a location convenient to the population center nearest to the proposed facility. Public notice of the public hearing shall be given at least 30 days before the hearing. Any requests for a public hearing accompanied by written opposition to the draft permit should be addressed to John Oren, Waste Management Permits Chief, DEP Southcentral Regional Office, 909 Elmerton Ave., Harrisburg, PA 17110.

When making a determination regarding the issuance of a hazardous waste permit to ArcelorMittal Steelton, LLC, DEP will consider all written comments received during the comment period, any oral or written testimony received during the public hearing (if requested), the requirements of the hazardous waste regulations at 25 Pa. Code Chapters 260a-270a and 40 CFR 260-270 and the DEP's permitting policies.

At the time that a permit is issued, DEP also will issue a response to comments. This response will specify any provisions of the draft permit which were changed in the final permit decision and the reasons for the change. DEP will prepare a response to all significant comments on the draft permit that are raised during the public comment period or during any hearing. DEP will make the response available to the public as required in 25 Pa. Code 270a.10(c)(14).

**7/29/11 DRAFT**  
**COMMONWEALTH OF PENNSYLVANIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**PERMIT**  
**FOR HAZARDOUS WASTE FACILITY POST-CLOSURE**

Permittee: ArcelorMittal Steelton LLC

Permit Number: PAD 003026531

Facility: Steelton Plant, HWM-1 Hazardous Waste Landfill

This post-closure permit is issued by the Commonwealth of Pennsylvania Department of Environmental Protection (DEP) under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101 et seq. (the Act) and DEP hazardous waste regulations to ArcelorMittal Steelton LLC (hereafter called the Permittee), to perform post-closure monitoring and care at the hazardous waste management facility located in Swatara Township and Lower Swatara Township, at latitude 40° 13' 9" North and longitude 76° 48' 4" West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I - VI, consisting of pages 1 through 17 and Attachments 1 through 6 and the applicable regulations contained in 25 Pa. Code Chapters 260a-270a as specified in the permit.

This post-closure permit is based on the assumption that the information submitted in the post-closure permit application attached to the Permittee's letter dated June 26, 1990 and September 2, 2010, as modified by subsequent amendments dated February 23, 2011 and June 20, 2011, (hereafter referred to as the application) is accurate and that the facility will be monitored and maintained as specified in the application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform DEP of any deviation from or changes in the information in the application that would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This post-closure permit is conditioned upon full compliance with all applicable provisions of the Act; DEP regulations contained in 25 Pa. Code Chapter 260a-270a and 40 CFR 260-270; The Clean Streams Law, 35 P.S. 691.1 et seq.; the Air Pollution Control Act, 35 P.S. 4001 et seq.; the Dam Safety and Encroachments Act, 32 P.S. 693.1 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. 1396.1 et seq.; the Coal Refuse Disposal Control Act, 52 P.S. 30.51 et seq.; all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare. Violation of any of these laws and regulations is ground for enforcement action including but not limited to permit revocation.

Where reference is made herein to specific regulatory or statutory sections, such references shall be to the applicable regulatory or statutory sections as amended either in content or citation.

This post-closure permit is effective as of September \_\_, 2011, and shall remain in effect until September \_\_, 2021, unless revoked and reissued, or terminated in accordance with 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 CFR 270.41, 270.42, and 270.43 or continued.

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Waste Management Program Manager

## **PART I - STANDARD CONDITIONS**

### **A. EFFECT OF PERMIT**

This post-closure permit authorizes only the facility monitoring and care expressly described in this post-closure permit and does not authorize any other management of hazardous waste. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this post-closure permit does not constitute a defense to any action brought under the Act or any other law governing protection of public health or the environment.

### **B. POST-CLOSURE PERMIT ACTIONS**

This post-closure permit may be modified, revoked and reissued, terminated for cause as specified in 25 Pa. Code 270a.41, 270a.42, and 270a.43 and 40 CFR 270.41, 270.42 and 270.43 or suspended in accordance with the Act. The filing of a request for a post-closure permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or supersede the applicability or enforceability of any permit condition.

### **C. SEVERABILITY**

The provisions of this post-closure permit are severable, and if any provision of this post-closure permit or the application of any provision of this post-closure permit to any circumstance is held to be invalid, the application of such provision to other circumstances and the remaining provisions of this post-closure permit shall not be affected thereby.

### **D. DEFINITIONS**

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 25 of the Pennsylvania Code (25 Pa. Code Chapter 260a-270a), unless this post-closure permit specifically states otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "The Department" is the Department of Environmental Protection of the Commonwealth of Pennsylvania.

### **E. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE DEPARTMENT**

All reports, notifications or other submissions that are required by this post-closure permit to be sent or given to the Department should be sent certified mail or hand delivered to:

Department of Environmental Protection  
Southcentral Region – Facilities Manager  
Waste Management Program  
909 Elmerton Avenue  
Harrisburg, PA 17110-8200

## **F. SIGNATORY REQUIREMENTS**

All reports or other information requested by the Department shall be signed and certified as required by 40 CFR 270.11.

## **G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE**

The Permittee shall maintain at the facility office in Steelton, PA, until post-closure is completed, the following documents and amendments, revisions and modifications to these documents:

1. Post-closure plan required by 40 CFR 264.118 (a) and (b) and this permit.
2. Contingency plan required by 40 CFR 264.53(a) and this permit.
3. Inspection schedules and logs required by 25 Pa. Code 264a.15 and 40 CFR 264.15(b)(1) and (2) and this permit.
4. Annually-adjusted cost estimate(s) for facility post-closure required by 40 CFR 264.144 and this permit.
5. Documents required by Part I, Sections H, and Part II, Sections G and H of this permit.

## **H. DUTIES AND REQUIREMENTS**

1. Duty to Comply. The Permittee shall comply with all conditions of this post-closure permit. Any permit noncompliance constitutes a violation of the Act and the regulations promulgated thereunder, and is grounds for enforcement action including, but not limited to, permit revocation, revocation and reissuance, modification, and/or the imposition of fines and penalties.
2. Duty to Mitigate. The permittee shall take all necessary steps to prevent and abate any releases to the environment, and shall carry out such measures as are necessary to prevent significant adverse impacts on human health or the environment.
3. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and controls used by the Permittee to achieve compliance with the Act, the regulations, and the conditions of this permit. Proper operation and maintenance shall at a minimum include effective performance, adequate funding, and adequate operator training.
4. Duty to Provide Information. The Permittee shall furnish to the Department within the time specified by the Department, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or revoking this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by the Permittee pursuant to the Act, the regulations, or any permit condition.
5. Inspection and Entry. The Permittee shall allow the Department, its agents and authorized representatives to:

- a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records concerning the regulated facility or activity are kept.
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the Act, the regulations, or this permit.
- d. Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act or the regulations.
- e. Engage in any other activities necessary or appropriate to the documentation of events or conditions at any locations.

6. Monitoring and Records.

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from 40 CFR 261 Appendix I or an equivalent method approved by the Department. Laboratory methods must be those specified in 40 CFR 261 Appendix III; Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (U.S. EPA Document SW-846); most current edition of Standard Methods of Waste Water Analysis; or an equivalent method approved in writing by the Department.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by the Act, the regulations, or this permit, and all records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record, or application. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
- c. The Permittee shall maintain records of all groundwater quality and groundwater surface elevations collected during the active life of the facility and during the post-closure care period as well.
- d. The Permittee shall, at a minimum, keep monitoring records that include the following information:

- (1) The dates, exact place, and times of sampling or measurements.

- (2) The individuals who performed the sampling or measurements.
  - (3) The dates analyses were performed.
  - (4) The individuals who performed the analyses.
  - (5) The analytical techniques or methods used.
  - (6) The results of such analyses.
7. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the post-closure permitted facility. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. The Permittee shall not modify the closed facility without first obtaining a permit modification or written approval from the Department.
8. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the post-closure permitted facility or activity that may result in noncompliance with permit requirements.
9. Transfer of Permits. This post-closure permit shall not be transferred or assigned to any other person or municipality. Any transfer of a permit in violation of this paragraph or the rules and regulations of the Department shall be null and void and automatically revoke that permit.
10. Twenty-Four Hour Reporting. The Permittee shall report to the Department any noncompliance with the Act, the regulations, or any condition of this post-closure permit or any occurrence or event at the facility that may endanger health or the environment.
- a. Information shall be provided orally within twenty-four hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
    - (1) Information concerning release or potential release of any hazardous waste from the facility that may endanger public drinking water supply sources.
    - (2) Any information of a release, potential release, or discharge of hazardous waste from the facility, or information of a potential or actual fire or explosion at the facility, which may threaten the environment or human health.
  - b. The description of the occurrence and its cause shall include:
    - (1) Name, address, and telephone number of the owner or operator.
    - (2) Name, address, and telephone number of the facility.
    - (3) Date, time, and type of incident.

- (4) Name and quantity of material(s) involved.
  - (5) The extent of injuries, if any.
  - (6) An assessment of actual or potential hazards to the environment and human health at or near the facility.
  - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided to the Department within five days of the time the Permittee becomes aware of the occurrence. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance (including exact dates and times); if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
11. Other Noncompliance. The Permittee shall report to the Department all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition I.H.10.
12. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, or whenever the Permittee becomes aware of circumstances which require a modification or clarification of any fact or representation made to the Department in connection with a permit application, it shall promptly submit such facts or information to the Department.

## **PART II - GENERAL FACILITY CONDITIONS**

### **A. DESIGN AND OPERATION OF FACILITY**

The Permittee shall maintain the facility to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater.

### **B. POST-CLOSURE**

1. Monitoring and Maintenance. The Permittee shall monitor and maintain the facility as required by 40 CFR 264.117(d), 40 CFR 264.118(a) and (b), [40 CFR 264.280(c), 40 CFR 264.310] and in accordance with the post-closure plan, Attachment 1.
2. Amendment to Post-Closure Plan. The Permittee shall amend the post-closure plan in accordance with 40 CFR 264.118(a) and (d) whenever necessary.

### **C. SECURITY**

The Permittee shall comply with the security provisions of 40 CFR 264.14(b) and 264.14(c).

### **D. GENERAL INSPECTION REQUIREMENTS**

The Permittee shall follow the inspection plan set out in the inspection schedule in accordance with Attachment 1 and Attachment 2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR 264.15(c). Records of inspections shall be kept as required by 40 CFR 264.15(d). Documentation pertaining to the early to mid-spring yearly site inspections for examining the stability of the landfilled areas shall be forwarded to the PADEP Southcentral Regional Office Waste Management Program within 60 days of the inspection date.

### **E. PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN**

1. Implementation of PPC Plan. The Permittee shall immediately carry out the provisions of the PPC plan, Attachment 3, and follow the emergency procedures described by 25 PA. Code 264a.56 and 40 CFR 264.56 whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents that could threaten human health or the environment.
2. Copies of Plan. The Permittee shall comply with the requirements of 40 CFR 264.53.
3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the PPC plan, as required by 40 CFR 264.54.
4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 CFR 264.55.
5. Emergency Procedures. The Permittee shall comply with the requirements of 25 Pa. Code 264a.56 and 40 CFR 264.56.

## **F. RECORDKEEPING AND REPORTING**

1. Operating Record. The Permittee shall maintain a written operating record at the facility office in Steelton, PA in accordance with applicable requirements of 40 CFR 264.73.
2. Biennial Report. The Permittee shall comply with all applicable biennial report requirements of 40 CFR 264.75. This report shall also include information as stipulated in 40 CFR 264.77(a).
3. Required Reports. The Permittee shall comply with all applicable reporting requirements as described in Part I, Section H.4; Part II, Sections D, H and I; and Part III, Section F and G of this permit.

## **G. CLOSURE**

Certification of Closure. The Permittee shall maintain at the facility office in Steelton, PA a copy of the certification that the facility has been closed in accordance with the specifications in the closure plan as required by 40 CFR 264.115 and 25 Pa. Code 264a.115.

## **H. COST ESTIMATE FOR FACILITY CLOSURE POST-CLOSURE CARE**

1. Annual Adjustment. The Permittee shall adjust the post-closure cost estimate for inflation within the timeframes specified by 40 CFR 264.144(b). The annual adjustment shall be submitted to USEPA, PADEP Central Office, and PADEP Southcentral Regional Office Waste Management Program.
2. Adjustment for Changed Conditions. The Permittee shall revise the cost estimate whenever there is a change in the facility's post-closure plan or in the measures necessary to prevent adverse effects upon the environment as required by 40 CFR 264.144(c).
3. Availability. The Permittee must keep at the facility office in Steelton, PA the latest cost estimate as required by 40 CFR 264.112 (a) and (b).
4. Incapacity of Permittee or Financial Institutions. The Permittee shall comply with 40 CFR 264.148 and 25 Pa. Code 264a.148 whenever necessary.

## **I. BONDING REQUIREMENT**

The Permittee shall maintain the financial test and corporate guarantee submitted to and approved by the Department as required by 25 Pa. Code 264a.153 and 40 CFR 264.145(f). The Permittee shall comply with all applicable bond replacement requirements of 25 Pa. Code 264a.158.

## **J. LIABILITY INSURANCE**

The Department may determine at any time after permit issuance that the permittee may be required to submit proof of insurance or an application for insurance pursuant to 40 CFR 264.147(e).

#### **K. ADDITIONAL SUBMISSION**

The Permittee shall submit an updated Attachment 3 (PPC Plan) within 60 days after issuance of the permit. This updated attachment, when approved will replace the existing attachment.

#### **L NOTICE TO LOCAL LAND AUTHORITY AND DEED RECORDATION**

The Permittee shall submit to the Department and to the municipality in which the facility is located a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks in accordance with 40 CFR 264.119(a).

In addition, the Permittee shall submit to the municipality and to the Department a record of the type, location, and quantity of hazardous waste disposed of within each cell or area of the facility in accordance with 40 CFR 264.119(b).

In addition, the Permittee shall record a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity notify a potential purchaser of the property that the land has been used to manage hazardous waste; its use is restricted; and the survey plat and record of the type, location, and quantity of hazardous waste disposed of within each cell or area of the facility in accordance with 40 CFR 264.119(b).

## **PART III - GROUNDWATER MONITORING**

### **A. WELL LOCATION AND CONSTRUCTION**

The Permittee shall install and maintain a groundwater monitoring system as specified below:

1. The Permittee shall install and maintain groundwater monitoring wells at the locations specified on the attached map, Attachment 2 (Figure 1).
2. The Permittee shall construct and maintain the monitoring wells identified in condition III.A.1 in accordance with the attached plans and specifications, Attachment 4. Note: well logs are included for all groundwater monitoring wells except MW-1R. In 1997, as a result of complications during the drilling of MW-1R, nearby MW-1RU was installed. A well log was never created for MW-1R. In 2001, the Department allowed nearby MW-1R to replace MW-1RU due to subsequent damage to the MW-1RU wellbore. The total depth of MW-1R is 185 feet below ground surface.

The attached plans and specifications must meet the requirements of 40 CFR 264.97(a) and 264.97(c). They should consist of design drawings and design criteria applicable to all wells, as well as individual well specifications identifying depth, screened intervals, and other construction details.

### **B. SAMPLING AND ANALYSIS PROCEDURES**

The Permittee shall use the following techniques and procedures when obtaining samples and analyzing samples from the groundwater monitoring wells described in condition III.A.

1. Samples shall be collected by the techniques described in Attachment 2 (Appendix D).
2. Samples shall be preserved [and shipped (when shipped off-site for analysis)] in accordance with the procedures specified in Attachment 2 (Appendix D).
3. Samples shall be analyzed according to the procedures specified in Attachment 2 (Appendix D).
4. Samples shall be tracked and controlled using the chain of custody procedures specified in Attachment 2 (Appendix D).

The sampling and analytical procedures described in the above attachments must be designed to provide a reliable indication of the quality of the groundwater below the facility as required by 40 CFR 264.97(d) and 40 CFR 264.97(e).

### **C. GROUNDWATER ELEVATION**

1. The Permittee shall determine, for each monitoring well, the groundwater surface elevation each time groundwater is sampled in accordance with condition III.F, as required by 40 CFR 264.97(f).

2. The Permittee shall, at least annually by January 31, evaluate the data from condition III.C.1., as required by 25 Pa. Code 264a.97, to determine if monitoring wells are still properly located. This evaluation should be conducted by a professional geologist licensed in the State of Pennsylvania and included in the *Annual Monitoring Report*.

#### **D. BACKGROUND QUALITY AND MONITORING PARAMETERS**

1. The post closure monitoring shall be conducted in accordance with Attachment 2 (June 2011 *Groundwater Monitoring Plan*). This document was prepared so that the post closure monitoring of the RCRA HWM-1 Hazardous Waste Landfill, pre-RCRA Area 8 Hazardous Waste Landfill, and adjacent Residual Waste Landfill could be incorporated under one comprehensive document due to their close proximity to one another. This document includes provisions for future modifications to the monitoring program when appropriate, based on site conditions and monitoring results, so that there will no longer be a need for future permit modifications due to changes to the groundwater monitoring program. Departmental approval of the June 2011 *Groundwater Monitoring Plan* was based on applicable regulations and guidance.
2. The Permittee shall monitor well numbers MW-1R, MW-4, MW-5, MW-6, MW-10RD, MW-12, and MW-15M, as described in condition III.A in addition to the Act 108 well (Hollywood Motel) for the parameters specified in Attachment 2 (Appendix D - Table A) for the RCRA HWM-1 Landfill and pre-RCRA Area 8 Landfill.
3. The groundwater data from the RCRA HWM-1 Landfill and pre-RCRA Area 8 Hazardous Waste Landfills shall be compared to United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs), Secondary Maximum Contaminant Levels (SMCLs), Health Advisory Levels (HALs) and Alternate Concentration Limits (ACLs); Pennsylvania (PA) Statewide Health Standards (SHSs) and Site-Specific Standards (SSSs); Risk-Based Concentrations or Background as noted in Attachment 2 (Section 4.3), Attachment 5 (Table 4), and Attachment 6 (tabulated list of all parameters and the comparison values). Future revisions to Attachment 6 will not require a permit modification as described in condition III.D.1 and D.4.
4. Quarterly post closure groundwater monitoring has been conducted since 1993. As a result of stable groundwater data, the groundwater monitoring wells shall be sampled semi-annually for groundwater parameters designated in Attachment 2 (Appendix D – Table A). After at least 3 years of semi-annual sampling and analysis, additional reductions (or additions) to the groundwater monitoring program may be warranted. Such changes shall be made via written communications and associated agreements between the Permittee and the Department and shall be based on the applicable regulations and guidance. The June 2011 *Groundwater Monitoring Plan* has incorporated this process so that any such future changes will not require a modification to the prevailing hazardous waste and/or residual waste permits that govern the implementation of groundwater monitoring for the landfills.
5. The Act 108 well shall continue to be sampled on a quarterly basis for groundwater parameters designated in Attachment 2 (Appendix D – Table A).

#### **E. STATISTICAL PROCEDURES**

When evaluating the monitoring results pursuant to condition III.F, the Permittee shall use the following procedures:

1. The Permittee shall follow the statistical procedures described in 40 CFR 264.97(g).
2. The Permittee shall submit time series plots documenting parameter concentrations versus time for constituents of concern in addition to a written summary of the analytical results. The constituents detected will be compared to Federal and State regulatory guidance numbers such as USEPA MCLs, SMCLs, HALs and ACLs; PA SHSs and SSSs; Risk-Based Concentrations; or Background as noted in Attachment 2 (Section 4.3), Attachment 5 (Table 4), and Attachment 6 (tabulated list of all parameters and the comparison values).
3. Replicate analyses of pH, Specific Conductivity, Total Organic Halogens, and Total Organic Carbon, and statistical analysis by the Cochran's Approximation to the Behrens-Fisher-Student's t-test will not be required at this facility. The Department will specifically request analysis of data by Cochran's Approximation to the Behrens-Fisher-Student's t-test if it desires such information in the future.

#### **F. MONITORING PROGRAM AND DATA EVALUATION**

The Permittee shall determine groundwater quality as follows:

1. The Permittee shall collect, preserve and analyze samples pursuant to condition III.B.
2. The Permittee shall determine groundwater quality (i.e., the parameters specified in condition III.D.3) throughout the facility post-closure care period. These determinations shall be made in accordance with Attachment 2.
3. The Permittee shall determine the groundwater flow rate and direction at least annually, as required by 40 CFR 264.98(e).
4. The Permittee shall compare the groundwater quality at each monitoring well specified in III.D.2 to USEPA MCLs, SMCLs, HALs and ACLs; PA SHSs and SSSs; Risk-Based Concentrations; or Background with the procedures specified in condition III.E. The Act 108 well shall be compared to as USEPA MCLs, SMCLs and HALs; PA (SHSs); Risk-Based Concentrations; or Background.
5. The data evaluations shall be incorporated into one document for all three landfills (RCRA HWM-1 and pre-RCRA Area 8 Hazardous Waste Landfills and Residual Waste Landfill). The data evaluations shall be done by a licensed professional geologist. The Permittee shall perform the evaluation of the analytical data, pertaining to the RCRA HWM-1 and pre-RCRA hazardous waste landfills (groundwater monitoring wells and Act 108 well), described in condition III.F.4 within a reasonable amount of time after completion of sampling as required by 40 CFR 264.98(f)(2). The analytical results for the Residual Waste Landfill shall be accompanied by a data evaluation as required in 25 Pa. Code 288.152(b)(4), relating to water quality monitoring plan. Based on the need to coordinate the data collection, data evaluations and data reporting for the three landfills with slightly different requirements, the data evaluations shall be submitted to the Department within 60 days of

sampling or no later than 30 days after the end of the sampling period (i.e., quarter or semi-annual period), whichever comes first. The Act 108 quarterly well data will be tabulated, evaluated and presented with the following semi-annual monitoring report.

#### **G. REPORTING AND RECORDKEEPING AND RESPONSE**

1. The Permittee shall enter all monitoring, testing, and analytical data obtained pursuant to III.F in the operating record, as required by 25 Pa. Code 264a.97(1).
2. The Permittee shall continue to submit the analytical data to the PADEP Waste Management Program electronically via compact disc (CD) along with a signed cover letter indicating that the CD represents an official submission of groundwater monitoring data to the Department. Laboratory analytical data may be submitted with the other requested data on the CD or stored at the facility and provided to the Department upon request. The semiannual CD shall contain:
  - a. Hazardous Waste Monitoring Semi-Annual Report (for the HWM-1 and Area 8 Hazardous Waste landfills);
  - b. Form 14R Residual Waste Landfill Quarterly and Annual Water Quality Analyses;
  - c. Commercial Hazardous Waste Facility Private Water Supply Quarterly Water Quality Analyses for the Act 108 Well (Hollywood Motel);
  - d. Laboratory chain of custody documents;
  - e. Field data sheets (field-notes/purge-records);
  - f. A spreadsheet containing all groundwater data (including the Act 108 well) in an appropriate format for downloading into the PADEP Southcentral Regional Office Waste Management Program's database, which is currently a 22-column comma separated value (\*.csv) format; and
  - g. Data evaluation comparing the groundwater analytical data of all wells (including the Act 108 well) to USEPA MCLs, SMCLs, HALs and ACLs; PA SHSs and SSSs; Risk-Based Concentrations; or Background via tabulated spreadsheets, trend plots and written summary.
3. If the Permittee determines, pursuant to condition III.F, that there is a statistically significant increase above the background values for the parameters specified in condition III.D.3 he shall:
  - a. Determine whether the facility has caused the significant increase as required by 40 CFR 264.98(g).
  - b. Notify the Department in writing within seven days, as required by 40 CFR 264.99(h)(1).
  - c. Within 30 days, develop and submit a specific plan, as required by 40 CFR 264.99(g) and 264.99(h)(2)(ii), based on the outline required under 40 CFR 264.91 for a groundwater quality assessment program.

- d. Submit all reports, to the Department, as required by 25 Pa. Code 264a.97(1).
- e. Begin to implement the groundwater quality assessment program within 30 days of Department approval or permit modification.

#### H. MISCELLANEOUS:

1. A sinkhole contingency plan is included in Attachment 2 (Appendix E: Page 1 and 2 and Attachment D) as a result of sinkholes being documented by the Department on April 7, 2011 and May 10, 2011. This plan includes procedures for correcting sinkhole problems and how the area will be monitored for future sinkholes. The Permittee shall follow the sinkhole contingency plan when sinkhole problems arise. The Department shall be notified of the existence of sinkholes prior to repairs.
2. The Permittee shall notify the Department if the pumping of the adjacent Hempt Brothers quarry ceases. This action would alter the direction of groundwater flow in the vicinity of the ArcelorMittal hazardous waste and residual waste landfills; therefore the groundwater flow would need to be re-evaluated.

#### **PART IV - GROUNDWATER QUALITY ASSESSMENT**

- A. If the Permittee determines that there is a statistically significant increase for indicator parameters, constituents, or reaction products at the point of compliance that provide a reasonable indication of the presence of hazardous constituents in the groundwater, a groundwater quality assessment program must be established at the facility. The Permittee shall address this requirement in accordance with 40 CFR 264.99(h) for groundwater quality assessment programs. The applicant is required to submit detailed plans and engineering reports describing the proposed program.

## **PART V - ABATEMENT PROGRAM**

- A. If hazardous waste, hazardous waste constituents, or decomposition byproducts have entered the groundwater at the point of compliance well locations, an abatement program must be implemented to bring the unit back into compliance. The Department must approve the required corrective action measures, and the monitoring program and data evaluation procedures.
1. The Permittee shall implement an abatement program to remove or treat any hazardous waste, hazardous constituents or decomposition byproducts as noted in Attachment 2 (Appendix D – Table A) and return to compliance.
  2. The Permittee shall initiate abatement within 30 days after Department approval or modification of the abatement program.
  3. The Permittee shall conduct an abatement program that results in abatement of any groundwater contamination by removing or treating all hazardous waste or hazardous constituents or decomposition byproducts in accordance with 40 CFR 264.100(b), (c), (d), and (e).
  4. The abatement program shall be amended by permit modification as necessary to maintain compliance with applicable regulatory requirements.
  5. The abatement measures may be terminated once the concentration of hazardous constituents are reduced to levels below their respective concentration limits for 3 consecutive years as required by 40 CFR 264.100(f).]

### List of Attachments

1. Post Closure Plan: Appendix D (Post Closure Permit Application dated September 2010)
2. *Groundwater Monitoring Plan* dated June 2011
3. Preparedness, Prevention and Contingency (PPC) Plan: Appendix G (Post Closure Permit Application dated September 2010)
4. Monitoring Well Construction Logs: Appendix H (Post Closure Permit Application dated September 2010)
5. Table 4 – Summary of Attainment Demonstration for Groundwater Area 8 Landfill (Act 2 Remedial Investigation and Final Report for the Area 8 Landfill – April 2010)
6. Tabulated Groundwater Monitoring Parameters